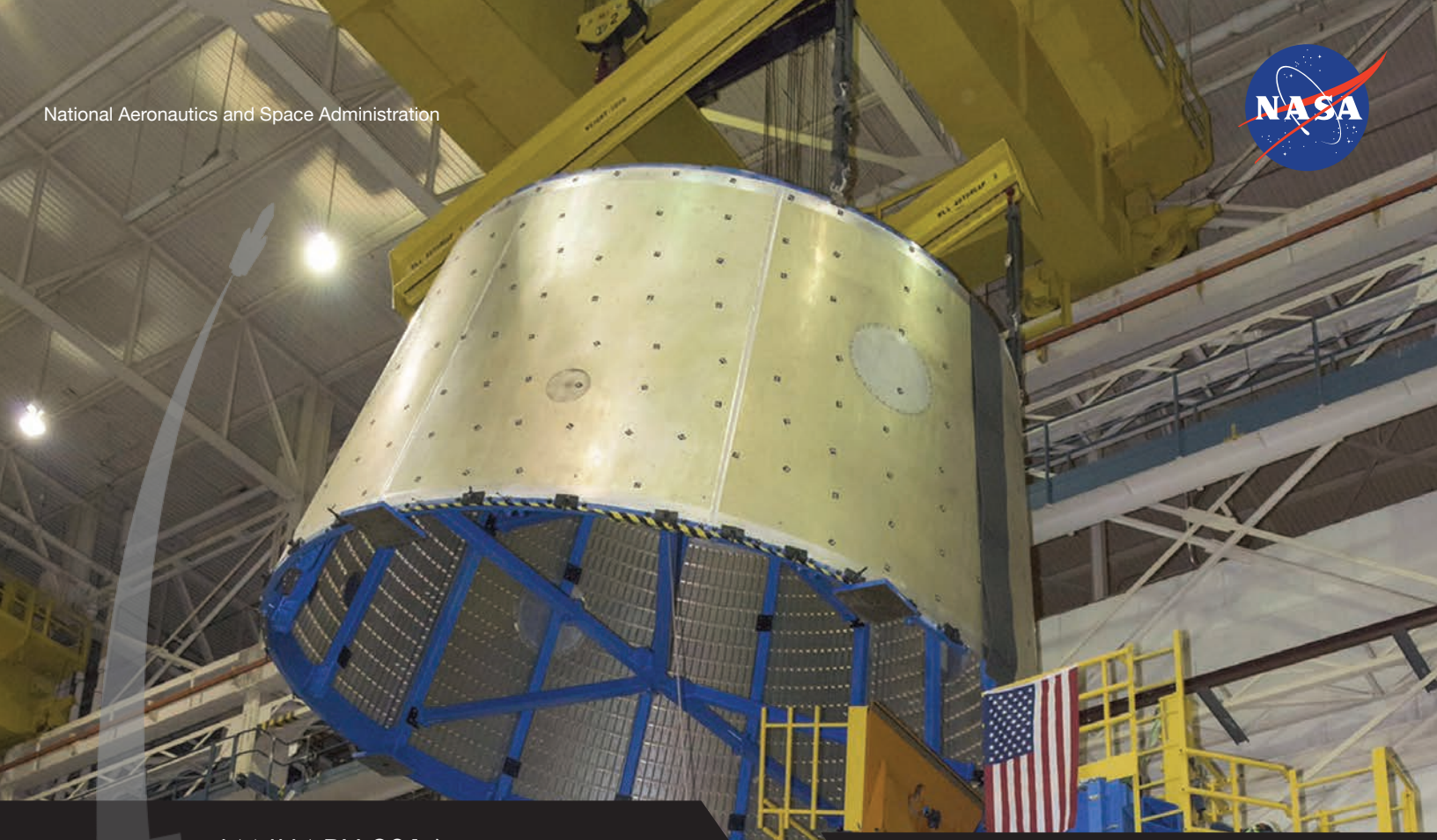
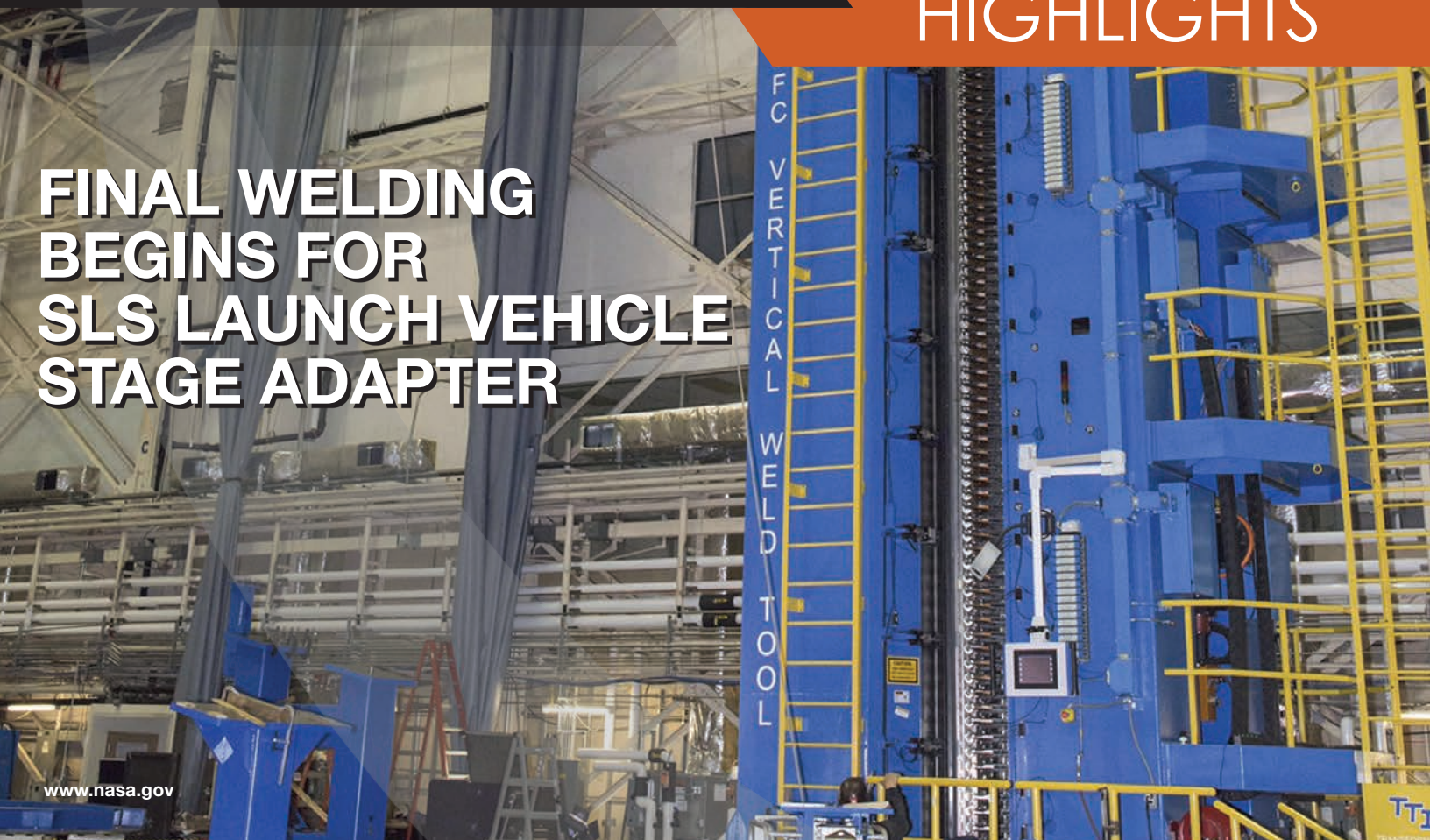
National Aeronautics and Space Administration



JANUARY 2016

# SPACE LAUNCH SYSTEM HIGHLIGHTS

## FINAL WELDING BEGINS FOR SLS LAUNCH VEHICLE STAGE ADAPTER

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The aft cone, or bottom portion, of a test version of the launch vehicle stage adapter (LVSA) for SLS is moved out of a weld tool after undergoing its final vertical weld at the agency's Marshall Space Flight Center in Huntsville, Alabama. The LVSA will connect two major sections of the SLS -- the core stage and the interim cryogenic propulsion stage (ICPS). Marshall and Teledyne Brown Engineering -- prime contractor on the LVSA work -- have two more major welds to finish the structural test article. When completed, the test hardware will be stacked with other structural test articles of the upper part of the rocket and tested in late 2016 at Marshall. Testing will verify the integrity of the hardware and ensure it can withstand the loads it may experience during flight.

# SECOND SLS TEST STAND BEGINS RISE AT NASA MARSHALL

A crane moves the first steel tier to be bolted into place Jan. 6 for welding of a second new structural test stand at the Marshall Center -- critical to development of SLS. When completed this summer, the 85-foot-tall test stand 4697 will use hydraulic cylinders to subject the liquid oxygen tank and related hardware of the massive SLS core stage to the same loads and stresses it will endure during launch. The stand is rising in Marshall's West Test Area, where work is also underway on the 215-foot-tall towers of test stand 4693, where similar structural tests will be conducted on the SLS core stage's liquid hydrogen tank.

# JERRY COOK NAMED DEPUTY DIRECTOR OF SLS PROGRAM

Jerry Cook has been named deputy director of the SLS Program at the Marshall Center. Appointed to the position in December 2015, he shares responsibility for all facets of the SLS Program, including programmatic and technical planning, procurement, development, testing, evaluation, production, and operation of the integrated SLS. Cook has more than 30 years of experience in both an operational and developmental environment of strategic planning, program management, and program execution.

# SLS, ORION ANOTHER STEP CLOSER TO FLIGHT

On Jan. 26, SLS had an opportunity to showcase progress as part of a media viewing and tour of the Orion spacecraft's recently completed pressure vessel at the Michoud Assembly Facility in New Orleans. NASA shipped the pressure vessel -- the underlying structure of the crew module -- in early February to NASA's Kennedy Space Center in Florida for outfitting with the spacecraft's systems and subsystems. Engineers will then process the vessel and later integrate with the SLS ahead of their first joint mission, Exploration Mission-1 (EM-1).

*The completed Orion pressure vessel*


*Mark Kirasich, Orion program manager at Johnson Space Center, talks about the work that went into the spacecraft's completed pressure vessel.*


*While on a tour of Michoud, guests get a chance to see the engine section weld confidence article in the world's largest welding tool, the Vertical Assembly Center.*


Where better for the world's largest rocket in the world to go than the world's largest technical trade show? That's just what SLS did as first-time participants of the Consumer Electronics Show in Las Vegas. NASA showcased SLS, Orion, and Ground Systems, as well as future missions and the latest technologies. Attendees enjoyed interactive activities, such as a virtual experience of SLS and Mars, and interacting with a Mars rover. Former NASA Astronaut Don Thomas also made a special appearance, signing autographs and posing in pictures with guests. The event drew more than 170,000 industry professionals. While in Nevada, SLS and Thomas visited several local schools and Boys & Girls Clubs to talk about the rocket and NASA's missions.



***ABOVE:*** *NASA's booth at the Consumer Electronics Show was featured in Fortune and EDN Network.*

***MIDDLE-RIGHT:*** *Inspiring the next generation of explorers as they learn more about SLS.*

***BOTTOM:*** *Former NASA astronaut Don Thomas signs autographs and meets fans.*


NASA has begun the journey to Mars with SLS -- and the SLS blog, *"Rocketology" is telling the story*.

*Rocketology* provides a glimpse of the SLS rocket before it reaches the launch pad -- a rare, once-in-a-generation behind-the-scenes look at how NASA designs, builds and tests a massive launch vehicle like none other in the world. *Rocketology* also pulls back the curtain on the real-world rocket science -- and rocket scientists – that will make possible the first human footsteps on another planet.

Follow along here. Comments and questions will be addressed on the SLS Facebook page.

## SPACEFLIGHT PARTNERS: MEGGITT (ORANGE COUNTY) INC.

- Where is Meggitt located? **Irvine, California**
- How many employees do you have? **450**
- What are you working on for SLS? **We are supplying flight instrumentation sensors to measure things on the rocket like acoustics, acceleration, and pressure.**
- Why do you like doing this work? **It is rewarding to have our sensors on such an important and high-visibility program.**
- How do you feel about working on the world's most powerful rocket? **It is exciting to be a part of history and helping NASA conquer new space frontiers.**

*Meggitt employees and their children talk to NASA astronaut Ricky Arnold during a Feb. 4 Boeing supplier visit. Meggitt is part of the Boeing team responsible for the SLS core stage and avionics.*

## FOLLOW THE PROGRESS OF NASA'S NEW LAUNCH VEHICLE FOR DEEP SPACE:

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COMING IN
## FEBRUARY:

**Start of interim cryogenic propulsion stage (ICPS) assembly**

**Secondary payloads**